

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
US Ecology Waste Disposal Facility Explosion - Removal Polrep  
Initial and Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region X

**Subject:** POLREP #1  
Initial/Final  
US Ecology Waste Disposal Facility Explosion

**Grand View, ID**  
**Latitude: 43.0654012 Longitude: -116.2640888**

**To:**  
Brooks Stanfield, EPA  
Calvin Terada, EPA  
Beth Sheldrake, EPA  
Albert Crawshaw, IDEQ  
Jeff Rylee, IOEM  
Rees David, EPA  
Wally Moon, EPA  
Jim Wernitz, EPA Region 10 IOO  
Mark MacIntyre, EPA  
Kris Leefers, EPA  
Dean Ehler, IDEQ  
Mark Dietrich, IDEQ  
Natalie Creed, IDEQ

**From:** Stephen Ball, OSC  
**Date:** 12/10/2018  
**Reporting Period:** 11/17/2018 - 11/19/2018

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	<b>Contract Number:</b>
<b>D.O. Number:</b>	<b>Action Memo Date:</b>
<b>Response Authority:</b> CERCLA	<b>Response Type:</b> Emergency
<b>Response Lead:</b> PRP	<b>Incident Category:</b> Removal Action
<b>NPL Status:</b> Non NPL	<b>Operable Unit:</b>
<b>Mobilization Date:</b> 11/18/2018	<b>Start Date:</b> 11/18/2018
<b>Demob Date:</b> 11/21/2018	<b>Completion Date:</b> 11/21/2018
<b>CERCLIS ID:</b>	<b>RCRIS ID:</b>
<b>ERNS No.:</b>	<b>State Notification:</b>
<b>FPN#:</b>	<b>Reimbursable Account #:</b>

#### 1.1.1 Incident Category

Emergency Response

#### 1.1.2 Site Description

The site is a Subtitle C hazardous waste disposal facility, which is primarily engaged in the management and disposal of inorganic hazardous waste. It is located in a remote area of Owyhee county approximately 10 miles from the town of Grand View, Idaho. They have processed magnesium fines waste streams for over 10 years without incident. There were 21 people on site at the time of the incident.

#### 1.1.2.1 Location

20400 Lemley Road Grand View, Owyhee County, ID 83624

Latitude: 43.0654012  
Longitude: -116.2640888

#### 1.1.2.2 Description of Threat

During the process of treating a waste stream of magnesium fines prior to disposal a release occurred resulting in an explosion and fire in the Containment and Stabilization buildings. Additional containers of several waste streams were located on the apron directly south of the building and some of those containers were impacted.

Several wastes including the magnesium waste, corrosive waste and flammable waste are hazardous substances as defined by 40 CFR 302.4 and this release poses a threat to public health and welfare of the United States according to the criteria for a removal action listed in 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan.

#### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

At approximately 0915 Mountain Standard Time on November 17th, an explosion occurred at the US Ecology Subtitle C disposal facility in Grand View, Owyhee County, Idaho. The explosion took place in a

building, called the Stabilization building, used to process magnesium powder fines waste. Identical impacts were observed in the connected Containment building, which was a later addition to the Stabilization building, but considered a separate building. It was estimated that approximately 7,000 pounds of magnesium waste was present in the Stabilization building. Magnesium is an alkaline earth metal and reacts strongly when coming in contact with water although the exact cause of the explosion is not definitively known.

Three workers from the facility were injured in the explosion and one fatality occurred. The building where the magnesium waste was located was significantly damaged and the explosion caused some damage to surrounding buildings, which may also contain hazardous waste. There was an initial fire resulting from the explosion, however it burned out by the evening of November 17, 2018. Responding firefighters did not use water to fight the fire and took up defensive positions due to the nature of the fire. The fire was limited to the building footprint and was described as smoldering after the initial explosion. The fire did not spread. Damage from the explosion compromised US Ecology's ability to immediately access and provide definitive information on the chemical contents of all surrounding structures. There were no initial concerns about impacts to off-site air quality as the Regional Response HazMat team conducted air monitoring during the day of November 17th using a 5-gas meter and observed no issues. US Ecology began response activities on November 18, 2018 after control of the site was released from Owyhee County Sheriff. An EPA OSC deployed to the site on the morning of November 18 and EPA START contractors deployed to the area on the evening of November 18th.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

Once the site was released to US Ecology, assessment teams conducted visual surveys of the impacted buildings and all waste container storage areas. It was determined that perimeter buildings and pads, used to store hazardous waste, were damaged in some cases, but in all cases waste containers were not damaged and intact. Areas of concern identified from the assessment effort included the Containment and Stabilization building footprint and the concrete and gravel apron in front of the building complex. Some minor leaks in a few containers were noted and measures were taken, if safe, to address leaks. In other cases, leaks were controlled by containment structures and not expected to migrate laterally or into the subsurface.

After unified Command was established and assessment teams were able to survey the area, the following priorities were identified:

1. Secure Magnesium Fines drums located on the apron
2. Secure all other waste streams located on the apron
3. If allowable by a structural engineer, enter the building and assess flammable and acidic waste streams inside the building to determine if further immediate action is needed.

#### Monday November 19:

The PRP contractor established work zones around the Stabilization and Containment Buildings and began preparations to move the magnesium fines drums for overpacking and segregation in the staging area.

At the conclusion of the day, a total of 16 drums (10 damaged and 6 undamaged) drums had been overpacked and moved to the staging area. One pallet of magnesium fines drums had been segregated because one drum had an elevated temperature.

START conducted air monitoring for particulates, Lower Explosive Limit (LEL), and Volatile Organic Compounds (VOCs) at 2 locations in the Support Zone. AS01 was located on the west side of the Contamination Reduction Zone and AS02 was located in the Observation Area.

#### Tuesday November 20:

The PRP contractor completed overpacking and staging of magnesium fines drums. A total of 77 damaged and 12 undamaged drums were overpacked and moved to the staging area. The drum that had an elevated temperature from the previous day was deemed stable enough to overpack and is included in this group.

The PRP contractor moved debris from the explosion aside in front of the Stabilization Building in preparation for segregation and relocation of other drums and totes in front of the Stabilization and Containment Buildings. Efforts were made to move as little debris as possible to preserve the scene for an OSHA investigation. No vehicles that were impacted in the explosion were moved as part of this operation. The drums and totes were moved and segregated based on their original location. The total number, type, and general contents of the drums are included in the matrix table below.

The PRP collected samples from Pit 2 and samples of fines and ash outside the Stabilization and Containment buildings for field analysis.

START conducted air monitoring for particulates, LEL and VOCs at the Observation Area.

#### Wednesday November 21:

The PRP placed plastic tarps on the top of the damaged drums in the staging area and after receiving clearance from a 3rd party structural engineer, placed plastic tarps on the containers and drums still located in the Containment Building. These drums could not be removed due to concerns of building stability. Several visual assessments were done from afar and after a structural engineer deemed the building safe to walk through, a close-up inspection was done. One tote of acid was leaking into a containment area and floor dry was used to solidify the material. All other containers inside the building were deemed in stable condition.

All waste material assessments and any immediate stabilization measures needed were completed by the end of this day. EPA transitioned oversight to Idaho Department of Environmental Quality (IDEQ) and demobilized from the site.

#### 2.1.2 Response Actions to Date

#### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

#### 2.1.4 Progress Metrics

The drums were grouped from west to east in the segregated groups from which they were moved.

**Drum Group 1**

Caustics and amines  
 1 55-gallon drum without a lids full of solid debris  
 3 55-gallon undamaged drums full of solid debris  
 1 250-gallon tote

**Drum Group 2**

Caustic and amines  
 25 55-gallon undamaged drums  
 2 55 gallon drums without lids full of solid waste  
 13 35 gallon drums  
 43 5-gallon totes  
 8 boxes (4 each box) 1-gallon bottle

**Drum Group 3**

Sandblast Media  
 3 55-gallon drums without lids  
 36 55-gallon undamaged drums

**Drum Group 4**

Magnesium Fines  
 All drums from this location were overpacked in the overpack area prior to being moved to the staging area  
 77 35-gallon damaged drums  
 12 35-gallon undamaged drums

**Drum Group 5**

Magnesium (waste and shavings)  
 Drums were banded together on 3 pallets with 5 drums each  
 13 35-gallon undamaged drums  
 2 35-gallon partially crushed drums

**Drum Group 6**

Corrosives  
 8 55-gallon undamaged poly drums  
 5 55-gallon drums with damaged lids

**Drum Group 7**

Miscellaneous acids, corrosives, and solid waste  
 16 55-gallon undamaged drums  
 1 55-gallon crushed drum (overpacked after being moved to the staging area)  
 2 55 gallon undamaged poly drums  
 5 250-gallon totes  
 1 55-gallon acid drum (segregated in the staging area)

**2.2 Planning Section****2.2.1 Anticipated Activities**

PRP will continue cleanup of debris and relocation of the staged drums, totes, and containers to a permanent location pending approval from OSHA and IDEQ. Wastes will be managed according to requirements of the facility's RCRA permit.

**2.2.1.1 Planned Response Activities****2.2.1.2 Next Steps**

The PRP will provide the following information to EPA within 24 hours of demobilization:

- Initiate a daily e-mail report of significant activities.
- Provide a specific status update of the site following the first significant rain event.
- Notify EPA OSC immediately of any changes in site stability.

**2.2.2 Issues**

The OSC coordinated with the OSHA inspector to secure and stabilize the drums on the building apron in front of the Stabilization and Containment buildings. Care was taken to minimize debris disturbance during stabilization activities.

On Tuesday November 20, work around the Stabilization and Containment buildings ceased for approximately 2 hours for Idaho Power to remove a piece of building material from the power lines and to re-energize the lines.

**2.3 Logistics Section**

No information available at this time.

**2.4 Finance Section****Estimated Costs \***

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
TAT/START	\$30,000.00	\$15,000.00	\$15,000.00	50.00%
<b>Intramural Costs</b>				

<b>Total Site Costs</b>	\$30,000.00	\$15,000.00	\$15,000.00	50.00%
-------------------------	-------------	-------------	-------------	--------

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## **2.5 Other Command Staff**

No information available at this time.

## **3. Participating Entities**

### **3.1 Unified Command**

EPA  
US Ecology

### **3.2 Cooperating Agencies**

Idaho Department of Environmental Quality  
Idaho Office of Emergency Management  
Occupational Safety and Health Administration

## **4. Personnel On Site**

1 - EPA OSC  
2 - START

Estimated personnel on site at various times during this operational period.

22 - US Ecology  
9 - H2O (PRP contractors)  
1 - Idaho Power  
3 - Fluor  
3 - Baker Risk

## **5. Definition of Terms**

No information available at this time.

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

### **6.2 Reporting Schedule**

0700 - Daily briefing  
1600 - Bridge Call  
1700 - End of day briefing

## **7. Situational Reference Materials**

No information available at this time.